

1 We claim:

2 1. A hardware database for implementing known database protocols
3 comprising:
4 a database stored in a memory;
5 a microprocessor operable to receive statements from a user, the statements in
6 a known database protocol format, operable to manipulate data in the database; and
7 a data flow engine in communication with the microprocessor and the
8 database and operable to receive the statements from the microprocessor and to
9 process the statements against the database.

1 2. The hardware database of Claim 1 wherein the dataflow engine further
2 comprises:
3 a parser receiving the standardized database statements and converting the
4 standardized database statements into executable instructions and data objects;
5 an execution tree processor connected to the parse and receiving the
6 executable instructions from the parser, the execution tree processor creating
7 execution trees from the executable instructions and schedules the execution trees for
8 execution; and
9 a graph engine connected to the execution tree processor, the graph engine
10 operable to manipulate the database as required by the executable instructions.

1 3. The hardware database of Claim 1 wherein the information in the
2 database is represented in memory in the form of graphs.

1 4. The hardware database of Claim 1 wherein the hardware
2 database is connected directly to a network using a network connection, and the
3 microprocessor is operable to receive the statements from the users over the network
4 connection.

1 5. The hardware database of Claim 1 wherein the hardware database is
2 connected to application servers, the applications servers providing the statement to
3 the hardware database.

1 6. The hardware database of Claim 1 wherein the statements are
2 Structured Query Language statements.

1 7. The hardware database of Claim 1 wherein the hardware
2 database further includes a host microprocessor connected to the microprocessor.

1 8. The hardware database of Claim 1 wherein the manipulation of the
2 database by the statements includes reading information from the database, writing
3 information into the database and altering information in the database.

1 9. The hardware database management system of Claim 1 wherein
2 the data flow engine may call routines from the microprocessor.